

## REMARKS

Claims 55-59 and 63-67 were pending in the instant application. By this Amendment, Applicant has canceled claim 63 without prejudice to the right to file further divisional or continuation applications. Applicant has amended claim 64 and has added new claims 68-73. Support for the amendments and new claims can be found in the specification, in the claims as originally filed, and in Figures 1-4. Further support for new claims 72 and 73 can be found, *inter alia*, at page 21, lines 8-17. Neither the amendments nor the new claims introduce any new matter, and thus, their entry is requested. Upon entry of the present Amendment, therefore, claims 55-59, and 64-73 will be pending.

### **The October 27, 2003 Office Action**

In the Office Action, the Examiner required restriction between the following groups of claims:

- I. Claims 64-67, drawn to a method of determining whether a subject is at risk for ADHD by genotyping TPH, PNMT, ADOA2A, NOS3, or NAT1, indicated by the Examiner to be classified in class 435, subclass 6.
- II. Claim 63, drawn to a method of treating a subject for ADHD by administering a drug, indicated by the examiner to be classified in class 514, subclass 2 or 44.
- III. Claims 55-59, drawn to a method for determining whether a gene contributes to ADHD by performing statistical analysis, indicated by the Examiner to be classified in class 435, subclass 6.

The Examiner indicated that each of the claim groups represents a method distinct from the others, asserting that they do not share common goals or method steps. The Examiner also stated

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that the “inventions . . . have acquired a separate status in the art as shown by the different classifications and their divergent subject matter.”

In response, Applicant elects Group I, namely claims 64-67, with traverse. Applicant also has added new claims 68-73, which Applicant believes are properly included within this Group. Moreover, Applicant respectfully requests that the Examiner modify the restriction requirement and proceed to examine the claims of Groups I and III together.

Applicant first points out that, despite the Examiner’s statement to the contrary, the Examiner has in fact acknowledged that Groups I and III share the same class and subclass. This common classification and subclassification supports Applicant’s position that examination of these two Groups together would not represent a burden.

Claims 55-59 represent a novel method for reliably determining whether particular candidate genes contribute to ADHD, a polygenic disorder. This method takes into account the additive effect of the candidate genes, which, as the specification clearly sets forth, is required for an accurate assessment of whether such genes in fact contribute to the disorder. Once genes have been predetermined by this method to contribute, a subject can be tested for non-wild type alleles of each gene in the panel. The particular collection that the Examiner has already searched is the group consisting of TPH, PNMT, ADOA2A, NOS3, and NAT1. Because these genes have been analyzed together via the novel method set forth in claim 55, and determined by this method to contribute to ADHD, one can conclude that a subject having a non wild type allele of one or more of these genes is at an increased risk for ADHD. The more such alleles that are present in the individual, the greater the risk and/or intensity of the disease. Claims 64-67 and new claims 68-73 are directed to the genotyping aspect of this single inventive concept, and thus in Applicant’s view are all properly within elected Group I as set forth by the Examiner. Applicant maintains, however, that the identically classified claims of Group III, namely claims 55-59, are also part of the same invention and thus should be examined together with claims 64-73. Modification of the Restriction Requirement to include the examination of the claims of Groups I and III, (including new claims 68-73), would not represent a burden on the Examiner. Accordingly, Applicant respectfully requests

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that the Examiner so modify the Requirement and proceed to examine claims 55-59 and 68-73 on the merits.

The Examiner is invited to telephone the undersigned if it is deemed to expedite prosecution of the application.

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Respectfully submitted,

By



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